THE FOURTH ANNUAL REPORT

of the

DEPARTMENT *of* ANESTHESIOLOGY

1961

SECRETARY & TREASURER'S OFFICE
MAY 23 [illegible]

THE NEW YORK HOSPITAL-CORNELL MEDICAL CENTER
525 EAST 68TH STREET, NEW YORK 21, NEW YORK

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DEPARTMENT OF ANESTHESIOLOGY

The New York Hospital
1961

by JOSEPH F. ARTUSIO, JR., M.D.

To the President of the Board of Governors of the Society of The New York Hospital:

I am happy to present this report to you on the activities of the Department of Anesthesiology during 1961, the fourth year of its functioning as a separate department of The New York Hospital.

During the year 1961, as in the three previous years, the department has grown in size, in stature, and in reputation throughout the world. The year was marked by numerous invitations for myself and my colleagues to lecture at meetings of anesthesiologists throughout the world and, in one instance, to serve in the capacity of a visiting Professor in a Department of Anesthesiology of a medical school in this country. It is indeed gratifying to know that the Department of Anesthesiology of The New York Hospital-Cornell Medical Center is highly esteemed in other institutions in the United States and in foreign lands. During the past year, members of this department have presented papers or lectured in Dallas, Texas; San Francisco, California; Denver, Colorado; Salt Lake City, Utah; Ann Arbor, Michigan; Kansas City, Missouri; Hanover, New Hampshire; Syracuse, New York; Madison, Wisconsin; Los Angeles, California; Oklahoma City, Oklahoma, in this country, and abroad in Antigua, Puerto Rico, Canada, and Venezuela.

Through these lectures as well as through articles in the literature, our influence and point of view have been widely disseminated. The New York Hospital-Cornell Medical Center is providing new information both in clinical anesthesia and in research in anesthesiology to a large number of physicians. In the field of anesthesiology, this department is now one of the important centers for clinical work, teaching, and clinical research, a record of which we can indeed be proud.

During the years that anesthetics have been administered to the patients of The New York Hospital, oxygen and the weak anesthetic gas, nitrous oxide, have been purchased and used in small cylinders. But this system was costly. Upon recommendation of this department and approval of the administration, piped oxygen and nitrous oxide were installed. From large manifolds, the gases are conducted to appropriate outlets in the ceilings of our operating rooms and thence, through suitable lines, to the individual machines. This system will provide us with a considerable decrease in our cost of operation, which will, indeed, pay for the installation in a period of five years. The system, designed by Ohio Chemical, is completely guarded by appropriate alarm systems so that the large tanks in the manifold can be replaced prior to any decrease in line pressure.

Our development of methoxyflurane (Penthrane), a nonflammable, nonexplosive halogenated ether, is just about complete. However, our studies have also resulted in a satisfactory new anesthetic gas which is also nonexplosive and nonflammable. This new gas, which carries the generic name of teflurane, is now being studied at other major clinics throughout the country. The year 1962 will tell us whether it will become part of the armamentarium of the anesthesiologist.

SENIOR STAFF

My associates in the administration of this department have been:

Dr. Benjamin E. Marbury, Attending Anesthesiologist	January 1949
*Dr. Valentino D. B. Mazzia, Associate Attending Anesthesiologist	July 1952 -
Dr. Marjorie J. Topkins, Associate Attending Anesthesiologist	July 1952
Dr. Robert I. Schrier, Associate Attending Anesthesiologist	October 1956
Dr. Alan Van Poznak, Assistant Attending Anesthesiologist	February 1958
Dr. Herbert Erlanger, Assistant Attending Anesthesiologist	June 1957
†Dr. Gerald J. Millstein, Assistant Attending Anesthesiologist	August 1959
Dr. Francis M. Tiers, Assistant Attending Anesthesiologist	August 1959
Dr. George R. Monahan, Assistant Attending Anesthesiologist	July 1960
Dr. Jerold Schwartz, Assistant Attending Anesthesiologist	October 1961
Dr. Alfred Scimeca, Assistant Attending Anesthesiologist	November 1961
Dr. Jerome Weinroth, Assistant Attending Anesthesiologist	December 1961

*resigned June 1961
†resigned Jan. 1961

During this year we have again increased the number of attending anesthesiologists and can again say that this is the largest number of such specialists ever to have functioned at The New York Hospital. This increase in attending staff has given us a better overall coverage of clinical anesthesia and has provided more supervision to our residents.

During the year, Dr. Valentino D. B. Mazzia resigned his appointment as an Associate Attending Anesthesiologist, and we were indeed sorry to see him leave after nine years of distinguished service to this institution. However, we were very proud and happy that Dr. Mazzia became the Professor and Chairman of the Department of Anesthesiology of the New York University Medical College and Attending Anesthesiologist at the Bellevue Hospital. We certainly wish him well in his task of providing the highest calibre of clinical anesthesia, teaching, and research for the New York University College of Medicine.

We were also happy to have Dr. Gerald G. Millstein accept a position as an attending anesthesiologist at the Hospital for Special Surgery. While Dr. Millstein left our immediate hospital staff, he is in close proximity to us so we will be able to follow his progress.

Drs. Marbury, Topkins, Van Poznak, and Schrier have all continued in their administrative posts. Dr. Marbury continues to supervise the anesthesia given to patients in the Department of Obstetrics and Gynecology. Dr. Topkins continues in charge of the nurse anesthetists and is our representative on the Outpatient and Professional Service Committee. Dr. Schrier, upon the resignation of Dr. Mazzia, took on an extra duty as our representative on the Formulary Committee. Dr. Schrier continues to be in charge of the overall anesthesia equipment of the department and also our representative on the Records Committee. Dr. Van Poznak continues in charge of devloping our research program and is departmental representative on the Procedures Committee.

Dr. Francis M. Tiers and Dr. George R. Monahan and Dr. Herbert L. Erlanger continue on the attending staff. We also welcome three new assistant attending anesthesiologists: Dr. Jerold Schwartz, who returned from the armed forces after having completed his training in anesthesiology at Presbyterian Medical Center; Dr. Alfred Scimeca, who came to us following a residency in anesthesiology at the Bronx Veterans Administration Hospital; and Dr. Jerome Weinroth, who came to our staff from the private practice of anesthesiology in California.

RESIDENT STAFF

Resident staff appointments in Anesthesiology for the year 1961 follow:

First Year Residents

John J. Beirne, Jr., M.D.	July 1, 1959, to June 30, 1961
Yasuo Kakehi, M.D.	July 1, 1959, to June 30, 1961
Robert G. Merin, M.D.	July 1, 1959, to June 30, 1961
Anthony J. Puleo, M.D.	July 1, 1959, to June 30, 1961
Ann Huston, M.D.	July 1, 1960 -
Richard B. Knapp, M.D.	July 1, 1960 -
Lierert S. Turner, M.D.	July 1, 1960 -
Peter W. T. Yu, M.D.	July 1, 1960 -

First Year Assistant Residents

Charles Akselrad, M.D.	July 1, 1961 -
Phyllis Bagdi, M.D.	July 1, 1961 -
Raymond G. Barile, M.D.	July 1, 1961 -
Philip D. Freedman, M.D.	July 1, 1961 -
Raymond G. Hicks, M.D.	July 1, 1961 -
Russell P. King, M.D.	July 1, 1961 - Nov. 15, 1961
Louis J. Maggio, M.D.	July 1, 1961 -
Patricia M. O'Neil, M.D.	July 1, 1961 -

During 1961, sixteen young physicians received their residency training in the Department of Anesthesiology, the largest such group in our history. Of these, 25% received their medical degrees from Cornell University Medical College, a decrease from the figure of 33% in former years.

In July, 1961, Dr. John Beirne, Dr. Yasuo Kakehi, Dr. Robert Merin, and Dr. Anthony Puleo completed their residency training. Dr. John Beirne became an attending anesthesiologist at the Morristown Hospital in Morristown, N. J. Dr. Yasuo Kakehi returned to Japan and took up his duties as Professor of Anesthesiology at Nagoya City Medical School, Nagoya, Japan. Dr. Robert Merin joined the armed forces for a two-year period of duty, and Dr. Anthony Puleo became an attending anesthesiologist at the Lankenau Hospital, Philadelphia, Pa.

NURSE ANESTHETISTS

Dr. Marjorie J. Topkins in charge

Of the seventeen position available for nurse anesthetists, fifteen were filled during the year 1961. The nurse anesthetists are an extremely important segment of our clinical staff. They are an extremely competent group, and the attending anesthesiologists provide a constant source of information and consultation to them during their everyday clinical administration of anesthesia. Besides administering anesthetics, they assist the anesthesiologists in the administration of anesthesia in difficult and technically tedious surgical procedures. All patients to whom they administer anesthesia are carefully checked the night prior to the surgical procedure by an anesthesiologist who also provides counsel on the day of the operation. We are indeed proud of our staff of nurse anesthetists, functioning under the supervision of the attending anesthesiologists.

Sara Mullen, Senior Nurse Anesthetist	Sept., 1932
Josephine Cahill, Senior Nurse Anesthetist	Oct., 1943
Ethel Kovar, Senior Nurse Anesthetist	Oct., 1944
Grayce Eveleth, Staff Nurse Anesthetist	Nov., 1935
Catherine Litzen, Staff Nurse Anesthetist	April, 1937
Mary Sullivan, Staff Nurse Anesthetist	May 1948
Sheila McDermott, Staff Nurse Anesthetist	Jan. 1961
Elizabeth Davis, Staff Nurse Anesthetist	Feb., 1958
Maureen Maxfield, Staff Nurse Anesthetist	Feb., 1958
Consuela Hansen, Staff Nurse Anesthetist	Nov., 1958
Marthe Cohn, Staff Nurse Anesthetist	Dec., 1961
Carmela Marascio, Staff Nurse Anesthetist	Jan., 1959
Anne Marie Ryan, Staff Nurse Anesthetist	Sept., 1959
Marilyn Soderberg, Staff Nurse Anesthetist	April, 1961
Martha Pang, Staff Nurse Anesthetist	Sept., 1960
June de Vasselais, Staff Nurse Anesthetist	Sept., 1960
Barbar Frisch, Staff Nurse Anesthetist	Jan., 1961
Lowell J. Barker, Staff Nurse Anesthetist	Mar., 1961
Peggy A. Shackelford, Staff Nurse Anesthetist	June, 1961
Constance Morrison, Staff Nurse Anesthetist	July, 1961
Wylda Sparrow, Staff Nurse Anesthetist	Aug., 1961

FUNCTIONS OF THE DEPARTMENT OF ANESTHESIOLOGY

Clinical Service

The clinical service has continued to grow, primarily providing various forms of inhalation anesthesia to patients undergoing surgery. During this year, the number of nonflammable and nonexplosive anesthetics administered has increased greatly at the expense of the flammable drugs. I believe that this trend will continue, so that the administration of explosive anesthetic agents will gradually end.

Our staff continues to strive to choose each anesthetic regimen for the individual patient, lest our techniques become routine. Each patient who is considered for anesthesia and surgery has his own unique problems and will therefore behave differently during the state of anesthesia. This requires individual attention to each case, starting with the preanesthetic visit of the anesthesiologist and the choice of premedication and anesthetic technique, and culminating in the management of the case from moment to moment throughout the surgical procedure.

I believe that one of the significant clinical advances during 1961 has been provided to the obstetrical patient, who now receives anesthesia by the resident staff, by attending anesthesiologists, and by our nurse anesthetists. An anesthesiologist, and a nurse anesthetist are present on the delivery floor twenty-four hours a day. These two individuals provide continuous, modern, and safe clinical anesthesia for the obstetrical patient. If there are many deliveries during evening or night hours, this service can be expanded by the augmentation of three other individuals: two additional resident anesthesiologists and another attending anesthesiologist. During the day, of course, we have sufficient personnel who could give anesthesia at a moment's notice. Our service to the Department of Obstetrics and Gynecology has never been so complete. This type of continuous service by the anesthesiologist is possible only in large teaching institutions, but we must be the model for better and safer anesthesia for the obstetrical patient. An increase in twenty-four hour continuous service by the anesthesiologists for this group of patients is indeed necessary throughout the country, and it eventually will result in a lower morbidity and mortality for both the mother and the child.

RESIDENCY TRAINING

Dr. Valentino D. B. Mazzia in charge until July, 1961

The largest number of residents in the department's history functioned during this year. These young physicians are instructed and supervised during their training so that they become able to administer anesthetics for almost every clinical situation and are well schooled in the fundamentals of the use of a single anesthetic agent as well as multiple drug techniques. Instruction is also given in the administration of the newer nonflammable anesthetic agents that have been developed recently.

It might be appropriate at this time to discuss the philosophy of training our resident staff, our methods of training, and our results. Several alternative methods for the training of residents were available to us. The first was to provide a wide variety of clinical material and the necessary reading matter to the resident and to allow him, for the most part, to educate himself. Through this process of self education, the resident would develop scholarship in the specialty of anesthesiology. The second was the straightforward teaching program, consisting primarily of the didactic lecture. This would apparently provide a body of knowledge taught to the residents by well-trained and knowledgeable anesthesiologists. The didactic lectures could also be given by para-anesthesia personnel from the basic science departments or by other clinical specialists. The third method was based principally on the discussion-seminar type of teaching, whereby the individual is guided by an overall program of the topics to be discussed, the obligation being placed upon the resident, however, to acquaint himself with the assigned material. The discussion seminar is conducted to clarify points the resident might not understand from his reading and also to orient his new knowledge and place it in proper perspective in the total knowledge of the anesthesiologist. This latter information is not in standard texts and can only be acquired by conversation and discussion with the experienced anesthesiologist.

While I thoroughly approve of the first method, there are very few individuals learning the specialty of anesthesiology who are so actively motivated as to embark on a process of self education and develop scholarship in this branch of medicine. This type of individual is a rare jewel. The next method of teaching I believe to be worthless. Material didactically presented is rarely retained, even briefly. If it is remembered, very frequently it is recorded erroneously or out of context. It is a system of teaching whereby the individual has to expend a minimum of energy to acquire the material, and where no energy is expended, results are poor. The third method of teaching is the one that I prefer and the one that we use in this department today. It is based on the discussion-seminar, the subjects being planned well in advance. The student and the instructor take several weeks to prepare a particular subject and then come together to discuss the assignment. I believe it vital that a strict schedule be demanded of the resident, and although each time a seminar is held only small facets of the subject are discussed, the very number of the seminars rapidly adds to a large total body of knowledge.

Seminars are planned so that basic concepts are discussed first. Then over the period of the two year residency training program, more complex material is discussed, based upon previously learned knowledge. If the foundation is well constructed, then the new and more difficult areas are easily acquired.

During the seminar, the history of anesthesiology should be chronologically presented with emphasis on the reasons for the development of each phase of anesthesia rather than on a specific individual noted for specific accomplishment.

The resident must be introduced to the literature of his specialty. However, it is not sufficient for a program director to assign a journal and depend upon the resident to be able to report upon the most significant of the articles in a particular issue. The resident must be guided by his mentor, who must choose specific articles for discussion, mixing the classical papers with new material. To fulfill the function of a discussion of the literature, time should be alloted during the literature review so that the resident can be given the background of the investigator involved and may obtain an insight into the particular field of investigation. This will give him some insight into why a particular subject was studied by an individual or a group, and how this particular paper fits as a part of the whole series of investigations.

The maximum use of visual aids such as slides, charts, and motion pictures has helped us bring concepts to the residents and has greatly aided their retention.

During the training of residents in clinical anesthesia, the director of the program should meet with each one to discuss the actual clinical management of each anesthetic that the resident has administered during the month. This meeting will determine whether the resident is being given sufficiently varied clinical material, and it will also provide information as to his progress. It also gives the resident insight into clinical problems which have occurred during the administration of each anesthetic.

Although this is a rather rigid type of program, it can be varied depending upon the individuals. By and large, I have found that it has been extremely productive of a type of anesthesiologist that we desire to produce at this institution. Until I feel that there is some form of teaching superior to this one, we will continue to base this portion of our training program on it.

MEDICAL STUDENT TRAINING

In the last two annual reports, we discussed our experiment in clinical teaching, based upon mimeographed notes given to medical students in advance of a series of lectures. This was an attempt to convert the didactic lecture to the seminar type of teaching. Over the last two years we must say that the results have been disappointing. We find that the student does not prepare himself even with a set of complete mimeographed notes to guide his reading prior to the next lecture.

We have not been able to stimulate the student to accomplish the necessary reading prior to the scheduled classes. The only possible good the notes have done is to take away the necessity for note-taking during the lecture and to provide material for review prior to the final examination. I had hoped to be able to report to you that this method of teaching was indeed encouraging self education and scholarship in our students.

As I reported to you previously, Dr. Mazzia and I, using these notes as a foundation, were preparing a textbook primarily for medical school teaching. The text is now complete and the manuscript is in the hands of the publishers. This book, entitled "Practical Anesthesiology," will be published by the Mosby Company in the early spring of 1962. It is hoped that when the material appears in the form of a book rather than in the form of lecture notes and specific reading assignments, better results may be realized.

Interest in the 4th year practical demonstrations in anesthesia has greatly increased. The students are most interested in observing the administration of many anesthetic agents, observing anesthetic techniques, and discussing the particular clinical management of patients. This, we intend to continue.

I am somewhat disappointed, however, in the number of students applying for the elective in anesthesiology provided during the 4th year. Even though we are putting great effort in teaching in the 3rd and 4th years, we have decreased our efforts in the 1st and 2nd years. In previous years we have helped with some of the teaching in the basic science courses where they apply to anesthesiology. Our effort to teach in the basic science department was greatly rewarding in bringing the medical student into contact with the clinical anesthesiologist. From these early meetings, the 1st and 2nd year student can better choose an elective in this specialty than if he just meets the anesthesiologist for the first time in his 3rd year at a time when he must pick an elective. It is obvious that you cannot choose what you don't know, so I believe we should bring the anesthesiologist to the medical student at the earliest possible opportunity, so that he gets to know the function of this discipline in the University teaching center. This is important in developing his interests in this particular specialty. In 1962, we will try to arrange with the basic science departments to aid in the instruction of the 1st and 2nd year medical students.

INSTRUMENTATION AND RESEARCH FUNCTION

DR. ALAN VAN POZNAK in charge

The deparment has continued to provide instrumentation and monitoring for open heart surgery, aortic replacement, renal artery aneurysms, and hypothermia techniques for intracranial procedures. The training of anesthesia residents in the use of these instruments has been continued.

After five years of investigative work in the development of nonflammable anesthetics, three new compounds have been tried clinically. The results have been gratifying, provocative, and a stimulant to further research and development of new agents.

The first of these, methoxyflurane, has received trial in over 8,000 cases throughout the world. It is pharmacologically similar to diethyl ether in many aspects, and in addition it is entirely nonflammable and nonexplosive under operating room conditions. Its clinical use has been presented in a motion picture jointly prepared by the Department of Surgery and Anesthesiology. The stable heart rhythm and the profound muscle relaxation afforded by methoxyflurane have stimulated further research in the structure-activity relationship which may underlie these pharmacologic phenomena.

The second nonflammable anesthetic, teflurane, has had clinical trial in about 70 patients. It acts more rapidly than methoxyflurane and shares many of the clinical characteristics of cyclopropane. The supply has previously been limited because of problems in synthesis of the compound.

The third compound, roflurane, has had very limited clinical trial. It combines some of the speed of teflurane with the stable cardiac rhythm of methoxyflurane.

Comparative studies on the merits of these agents are in progress.

Another new concept in inhalation anesthesia will be published in the near future. It has long been assumed that inhalation anesthetics, with the exception of trichlorethylene, are excreted through the lungs without undergoing metabolic alteration. With the assistance of Abbott Laboratories and the Dow Chemical Company, we have shown that chloroform labelled with C^{14} is partly excreted as radioactive carbon dioxide, indicating metabolic conversion within the body. This demonstration of a previously unknown effect of a classical anesthetic agent has opened several investigative paths. The possible metabolism of other supposedly "inert" agents will be studied.

Electronarcosis has received much publicity in the last two years. As reported last year, we have been working in this field since 1957 — and have been unable to duplicate enthusiastic reports of other investigators. Recent meetings and panel discussions in Los Angeles, New York, and other cities have resolved some of the differences. No investigator has yet reported clinically satisfactory anesthesia using only electricity. The concept of a precisely controllable means of altering consciousness continues to intrigue us, and further studies are planned. Other physical forces in addition to electricity will be studied.

More research and investigative work could be done if there were adequate space in which equipment could be kept ready for use. Much time and effort are wasted in setting up and taking down equipment which is presently stored in any available space. We hope that our new research space will provide a sufficiently large anesthesia research laboratory adequate for investigative work and for the training of research anesthesiologists for the future.

Dr. B. E. Marbury of this Department and Dr. Edward Mann of the Department of Obstetrics and Gynecology are studying the relationship of anesthesia and lower uterine segment motility in the presence of the incompetent cervix. Electroencephalographic control of anesthesia and cine-radiography have been correlated for better understanding of the effect that anesthesia plays in the role of uterine motility. These investigations have been started in the non-pregnant uterus and indicate that anesthesia is associated with relaxation of the lower uterine segment. The gravid patient is soon to be studied.

Dr. Marjorie J. Topkins of this Department, and Dr. T. Killip and his associates in the Department of Medicine have begun to study the hemodynamic effect of various levels of di-ethyl ether anesthesia in the dog. Following the perfection of their techniques in the dog, the studies will be pursued in man.

RECORDS AND STATISTICS

Dr. Robert I. Schrier in charge

Dr. Schrier has been assisted in this work by Miss Sara Mullin and Miss Grayce Eveleth, who code, tabulate, and prepare the statistics of this department.

A review of the total primary anesthetics administered in 1961 (Chart I) as compared to the two preceding years shows no significant change. Inhalation anesthesia remains the predominant type of anesthesia, as in former years (approximately 75% of total). Of interest during the past two years has been the increasing choice of fluorinated anesthetic agents, which in this report represent slightly more than 10% of the inhalation anesthetics administered.

Chart II, the summary of methods of induction, techniques, and special drugs, shows no change from the preceding year. The relative proportion of endotracheal anesthesia and the use of neuromuscular blocking agents have remained essentially the same.

The distribution of cases on a calendar basis (Chart III) indicates that March, May, and June of 1961 were peak months. This pattern appears to be fairly constant. The preceding three years showed our largest case load to come during the four-month period of March through June.

Chart IV, the classification of complications, is subdivided into Chart (a) cardiac arrests which were related to anesthesia. Chart (b) cardiovascular complications, and Chart (c) pulmonary complications. The last two charts list complications which may or may not be related to anesthesia.

During 1962, we hope to improve the reporting of cardiac arrests throughout The New York Hospital by instituting a new form (Cardiac Arrest Report). These reports will be returned to the statistical section of this department for tabulation and analysis. It is anticipated that we will be able to measure the effectiveness of pulmonary and cardiac resuscitation as rendered in this institution.

1961

Department of Anesthesiology

General Surgery — GYN — Obstetrics

Cyclopropane	7,308	
Investigative Drugs	617	15,727
Ether — closed circle	1,535	
Ether — open	436	
Nitrous Oxide	4,473	
Intravenous Pentothal	78	
Rectal Pentothal	21	
Vinethene	11	
Reginoal block for surgery	30	
Spinal	212	
Caudal	19	
Fluothane	987	
Locals O.R.	3,391	
Blocks O.R. and Clinic (therapeutic and diagnostic)	22	
Locals Clinic	358	
Adjuvants for electroshock therapy	154	3,925
		19,652
Private patients	11,550	
Pavilion patients	8,102	19,652

CHART I—Annual Summary—Primary Anesthetics

1961

Department of Anesthesiology

General Surgery — GYN — Obstetrics

Methods of induction to primary anesthesia		
Intravenous Pentothal induction		9,130
Vinethene induction		306
Rectal Pentothal basals		79
Induction and maintenance with same anesthetic		
Cyclopropane induction to Cyclopropane maintenance		811
Ether induction to Ether maintenance		224
Nitrous Oxide induction to Nitrous Oxide maintenance		3,159
Technics		
Closed circle — CO_2 absorption technic		8,512
Semi-closed circle — CO_2 absorption technic		6,200
Open method mask		264
Insufflation (Mouth hook, Ayer's T or Slocum tubes)		184
Infant circle — closed CO_2 absorption technic		66
Mechanical Ventilator		165
Special technics		
Arfonad — controlled hypotension		115
Cardiac-pulmonary bypass		50
Generalized hypothermia (tub or blanket)		16
Refrigeration, localized		2
Localized hypothermia (ice packs)		66
Endotracheal intubation		
Nasoendotracheal	142	5,019
Oroendotracheal	4,877	5,019
Neuro-musclar blocking agents		
d'Tubocurarine	853	
Succinylcholine	4,170	
Both combined	591	5,614

CHART II—Annual Summary—Methods of Induction—Technics—Special Drugs

ANESTHESIOLOGY DEPARTMENT

Summary of cases — Includes General, Spinal and Block Anesthesia

	Jan.	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Total*
HEAD AND NECK													
ENT (by region)	60	50	84	71	85	62	19	17	54	59	58	50	669
Eye	23	19	28	36	36	31	39	39	20	22	24	33	350
Dental	8	12	5	8	4	16	7	12	5	6	11	2	96
Face	9	8	11	11	9	20	12	16	12	12	11	11	142
Thyroid	7	18	15	15	17	17	13	12	10	12	15	13	164
Neck	13	13	11	9	5	12	9	5	12	18	9	11	127
Head, superficial	0	0	1	0	0	0	1	1	1	1	1	0	6
Intra-cranial	24	12	21	16	27	18	12	21	9	21	25	17	223
Esophagoscopy } Bronchoscopy }	3	5	2	3	11	6	4	4	1	7	4	2	52
Total	147	137	178	169	194	182	116	127	124	158	158	139	1,829
THORAX													
Great Vessels	4	3	6	4	2	2	3	1	3	5	4	5	42
Mitral Valvulotomy, closed	2	11	2	5	3	2	4	1	2	1	2	1	36
Cardiac-pulmonary bypass	6	4	3	3	3	7	5	0	6	7	3	3	50
Other heart surgery	3	2	4	1	2	4	5	0	3	2	4	2	32
Intra-pleural	20	11	15	10	19	15	9	15	17	16	15	17	179
Extra-pleural	0	0	0	0	1	1	0	0	1	0	0	0	3
Thorax, superficial	33	32	34	42	43	46	25	36	30	29	50	26	426
Thoracic cage	1	1	0	0	1	0	0	0	0	1	1	1	6
Shoulder	1	2	2	3	1	2	0	4	1	2	2	1	21
Total	70	66	66	68	75	79	51	57	63	63	81	56	795
UPPER ABDOMEN													
Stomach-duodenum	34	25	31	17	29	25	19	19	16	26	27	23	291
Biliary tract	55	38	48	51	47	51	33	37	44	48	48	43	543
Retroperitoneal	2	8	3	3	3	7	1	0	4	1	4	2	38
Colon	27	16	35	31	34	35	23	14	23	24	24	22	308
Pancreas	2	0	1	6	2	1	3	4	1	6	2	1	29
Spleen	3	1	1	2	3	5	1	2	1	1	4	4	28
Renal	15	14	20	10	19	17	15	15	16	12	14	14	181
Portal	3	1	2	3	2	2	0	1	1	2	2	0	19
Close evisceration	0	0	0	0	0	1	0	0	0	0	0	0	1
Negative exploration	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	141	104	141	123	139	144	95	92	106	120	125	109	1,439

	Jan.	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Total*
LOWER ABDOMEN													
Appendix	25	16	28	18	27	21	14	26	26	12	17	22	252
Bowel, small	9	4	13	8	15	14	11	14	10	7	12	8	125
Normal OB delivery	327	294	356	323	355	362	384	340	345	367	336	328	4,117
GYN abdominal surgery	60	59	61	60	70	59	74	59	59	58	69	43	731
Urology, abdominal	29	26	29	20	33	33	29	24	18	22	30	28	321
Caesarean section	20	19	22	26	12	19	14	24	29	22	24	24	255
Abdominal-perineal	5	3	5	3	5	7	1	2	6	1	6	1	45
Abdominal aorta & vessels	7	8	6	6	6	5	4	4	6	9	9	3	73
Ventral hernia	10	1	4	6	2	3	4	4	1	5	3	3	46
Negative exploration	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	492	430	524	470	525	523	535	497	500	503	506	460	5,965
ABDOMINAL WALL													
Hernia, ing. fem. umb.	43	46	49	54	46	58	44	52	39	51	44	32	558
Lumbar sympathectomy	0	4	0	5	7	6	5	12	5	3	13	4	64
Abdomen, superficial	5	5	5	5	5	7	3	3	4	4	4	6	57
Burns, 10% body	0	1	1	1	1	0	0	0	0	0	3	2	9
Total	48	56	55	65	59	71	52	67	48	58	64	45	688
PERINEAL													
Perineal GU (TUR & Cysto)	105	88	125	105	105	113	102	82	91	129	116	88	1,249
Ano-rectal	19	24	20	33	24	16	16	19	15	16	17	14	233
Perineal GYN (D&C, etc.)	197	171	188	180	232	226	211	219	183	233	226	163	2,429
Vaginal hysterectomy	13	13	13	13	10	7	8	11	8	11	15	7	129
Total	334	296	346	331	371	362	337	331	297	389	374	272	4,040
SPINE													
Column	3	5	5	5	10	7	6	4	6	4	6	1	62
Cord	3	2	7	4	4	8	4	2	4	3	6	2	49
Back, pilonidal, etc.	9	2	7	4	4	5	5	6	5	10	5	2	67
Total	15	6	6	4	4	20	15	12	15	17	17	5	178
LIMBS		13	18	13	18								
Upper bone	6	2	5	2	5	7	2	7	4	3	3	5	51
Upper soft	16	15	19	25	17	13	15	21	18	13	19	14	205
Lower bone	34	32	22	20	29	21	15	21	19	14	19	26	272
Lower soft	23	16	19	30	17	22	24	22	22	24	18	22	259
Total	79	65	65	77	68	63	56	71	63	54	59	67	787
Grand total Operations	1325	1166	1393	1316	1449	1445	1257	1253	1218	1363	1384	1152	15,721
Grand total Anesthesias	1326	1166	1393	1317	1449	1446	1257	1254	1218	1363	1384	1154	15,727
Anesthesia—No Operation	1	0	0	1	0	1	0	1	0	0	0	2	6

CHART III

ANESTHESIOLOGY CLASSIFICATION OF COMPLICATIONS

Age in Decades	*Physical Status*	*Agent*	*Technic*	*Relaxant*	*Diagnosis-Operation*	*Anes. Ind. to Arrest*	*Complication*	*Result*
4th	3	Penthrane	Closed	Anectine	Severe diabetes mel. Hypophysectomy	1 hour	Cardiac Arrest O. R.	Cardiac Resus. Death
7th	3	Ether	Closed Endo.	None	BPH TURP	1 hour	Cardiac Arrest O. R.	Success. Resus. no sequelae
7th	2	Ether	Closed Endo.	Anectine	Thyroid adenoma Thyroidectomy	1 hour	Cardiac Arrest O. R.	Success. closed chest resus. no sequelae
4th	6	I.V. Pento.	I.V. Endo.	Anectine	50%—3rd degree body burns. Op. for debridement not done	Induction	Cardiac Arrest O. R.	Cardiac Resus. closed chest Death R R
8th	2	Fluothane	S. Closed Endo.	Anectine	Carcinoma rectum Abdominal-perineal	3 hours	Cardiac Arrest O. R.	Cardiac Resus. Death
5th	3	Teflurane	Closed Endo.	Anectine	Metas. Ca. Breast Hypophysectomy	35 min.	Cardiac Arrest O. R.	Success. Resus. no sequelae
7th	2	Penthrane	Closed Endo.	Anectine	Partial excision suprasellar tumor	4½hours	Cardiac Arrest O. R., hypovolemia	Success. Resus. no sequelae
2nd	6	Cyclo	Closed Endo.	Anectine	G I bleeding S T Gastrectomy	9 hours	Cardiac Arrest O. R.	Cardiac Resus. Death
1st	4	Cyclo	Infant Closed Endo.	Anectine	Ext. Wilm's Tumor	2½ hours	Cardiac Arrest O. R.	Cardiac Resus. Death

CHART IV (a)—Cardiac Arrests with Massage

ANESTHESIOLOGY CLASSIFICATION OF COMPLICATIONS

Age in Decades	*Physical Status*	*Agent*	*Technic*	*Relaxant*	*Diagnosis-Operation*	*Anes. Ind. to Arrest*	*Complication*	*Result*
7th	1	Fluothane	S.Closed	None	Bil. ing. hernia Hernioplasty	2 hours	Myocard. Infarct. 2nd p. o. day	Death
2nd	3	Ether	Closed Endo.	Anectine	Removal of Pheochromocytoma	3½ hours	CVA in O. R.	Improved
6th	2	Cyclo	Closed Endo.	Anectine Curare	Cholelithiasis Cholecystectomy	2 hours	Myocard. Infarct. 2nd p. o. day	Improved
5th	2	Penthrane	Closed Endo.	Anectine	Chr. Cholecystitis Cholecystectomy	3 hours	CVA—4th p. o. day	Death
8th	2	Ether	Closed Endo.	None	BPH TURP	4 hours	Pulmonary edema Congest. heart failure In R. R.	Improved
7th	2	Penthrane	Closed Endo.	Anectine	Ca. R. Lung R. Pneumonectomy	5 hours	Myocard. Infarct. 4th p. o. day	Improved
8th	2	Cyclo	Closed Endo.	Anectine	Duodenal ulcer Gastrectomy	4 hours	Myocard. Infarct. 1st p. o. day	Improved
5th	1	Cyclo	Closed	Curare	Fibrocystic disease Ex. breast tumor	1 hour	Myocard. Infarct. Recovery Rm.	Improved
7th	2	Cyclo	Closed Endo.	Curare	Choledolithiasis Choledocolithotomy	5 hours	Myocard. Infarct. 1st p. o. day	Improved
							Myocard. Infarct. 12 days later	Death

CHART IV (b)—Cardiovascular Complications

ANESTHESIOLOGY CLASSIFICATION OF COMPLICATIONS

Age in Decades	*Physical Status*	*Relaxant*	*Agent*	*Technic*	*Operation Diagnosis-*	*Anes. Ind. to Arrest*	*Complication*	*Result*
2nd	1	Ether	Open mask	None	Cryptoorchidism Ing. Orchiopexy	4 hours	Pulmonary edema in O. R.	Improved
8th	2	Fluothane	S.Closed Endo.	Anectine	Trigenimal Neuralgia Retrogasserian Neurotomy	2 hours	Laryngeal edema Tracheostomy 1st p. o. day	Improved
1st	3	Cyclo	Infant Closed Endo.	None	Tracheo-esophageal fistula. Lig. T.E. Fistula	4 hours	Laryngeal edema Tracheostomy 1st p. o. day	Improved
4th	1	Cyclo	Closed Endo.	None			LLL Pneumonia 3rd p. o. day	Improved
				Anectine	Cardiospasm Heller procedure	3 hours	Pulm. Infarct. 1st p. o. day	Death
6th	2	Cyclo	Closed Endo.	Anectine	Uni. V. Veins Uni. Phlebectomy	2 hours	RLL Pneumonia 4th p. o. day	Improved
7th	2	Cyclo	Closed Endo.	Curare	Chr. Cholecystitis CVA disease Cholecystectomy	2 hours	Mediastinitis 1st p. o. day	Improved
5th	1	Cyclo	Closed Endo.	Anectine	Exc. Dermal tumors	2 hours	Laryngeal edema Tracheostomy 1st p. o. day	Improved
8th	2	Cyclo	Closed Endo.	Cyclo	Ca. Colon Colostomy	3 hours		

CHART IV (c)—Pulmonary Complications

CLOSING COMMENTS

Having completed this report, I am sure that you share with me the feeling that 1961 marked further advances in almost every aspect of the functioning of the Department of Anesthesiology. Although we actually are not physically in our new research laboratories, they have been allocated in the new research building of the Medical School, and it will be a notable day when we will be able to move our many pieces of research apparatus into one area.

However, emphasis must not be on the past, but on the future. All our efforts must be directed toward the improvement of all aspects of this department. We must continue to improve. We must not be satisfied with our accomplishments to date. Being complacent with our accomplishments in this or any other department of our hospital or medical school means not only that the department and its personnel have reached their peak, but that they have already started on the downward trail where mediocrity rather than excellence is adequate.

"Hīc nōn accidet"

PUBLICATIONS

JOSEPH F. ARTUSIO, JR.,, M.D.
Choice of an Anesthetic. Chapter in Drugs of Choice, edited by Walter Modell. The C. V. Mosby Company, St. Louis, 1962-1963.
Tribulations of an Anesthesiologist. Journal of Medical Education, 36: 1, Chapter ID, March 1961.
Annual Report, 1960. Department of Anesthesiology. The New York Hospital-Cornell University Medical Center.
with Van Poznak, A. Laboratory and Clinical Investigation of Teflurane, 1,1,1,2-Tetrafluoro-2-bromoethane (DA-708). Fed. Proc. 20: 1, Part I, March 1961.
with Van Poznak, A. Laboratory and Clinical Studies with 1,1,2-Trifluoro-2-bromoethyl methyl ether (DA-893). Fed. Proc. 20: 1, Part I, March 1961.
with Marbury, B. E., Mazzia, V. D. B., and Van Poznak, A. Anesthesia for Cardiac Surgery. Surgical Clinics of North America, 41: 2, April 1961.
with Van Poznak, A. Methoxyflurane: A Nonexplosive Inhalation Anesthetic for Neurological Surgery. Excerpta Medica, International Congress Series #36, 1961.
with Puleo, A. J. Pharmacology. Chapter in Anesthesia by Forty American Authors, edited by Donald E. Hale, M.D. The F. A. Davis Company, Philadelphia, Pa.
with Van Poznak, A., Marbury, B. E., and Schrier, R. I. Methoxyflurane: The First Five Hundred Cases", (In press).
with Van Poznak, A., Merin, R. G., and Beirne, J. J. A Clinical Evaluation of Teflurane: A Preliminary Report. (In press).
with Mazzia, V. D. B. "Practical Anesthesiology", edited by C. V. Mosby Company, St. Louis. (In press).

BENJAMIN E. MARBURY, M.D.
with Artusio, J. F., Jr., Van Poznak, A., and Schrier, R. I. Methoxyflurane: The First Five Hundred Cases. (In press).
with Artusio, J. F., Jr., Mazzia, V. D. B., and Van Poznak, A. Anesthesia for Cardiac Surgery. Surgical Clinics of North America, 41: 2, April 1961.

ALAN VAN POZNAK, M.D.

with Mazzia, V. D. B., Brand, L., Mark, L. C. Lack of Correlation between Electroencephalographic Effects and Plasma Concentrations of Thiopental. Brit. Jour. of Anaesth. 33: 2, February 1961.

with Artusio, J. F., Jr., Laboratory and Clinical Investigation of Teflurane (DA-708) 1,1,1-2-Tetrafluoro-2-bromoethane. Fed. Proc. 20: 1, Part I, March 1961.

with Artusio, J. F., Jr. Laboratory and Clinical Studies with 1,1,2-Trifluoro-2-bromo ethyl methyl ether (DA-893). Fed. Proc. 20:1, Part I, March 1961.

with Artusio, J. F., Jr., Marbury, B. E., Mazzia, V. D. B. Anesthesia for Cardiac Surgery. Surgical Clinics of North America, 41: 2, April 1961.

with Artusio, J. F., Jr. Methoxyflurane: A Nonexplosive Inhalation Anesthetic for Neurological Surgery. Excerpta Medica, International Congress Series #36, 2nd International Congress of Neurological Surgery, Washington, D. C. October 1961.

with Artusio, J. F., Jr. Marbury, B. E., and Schrier, R. I. Methoxyflurane: The First Five Hundred Cases. (In press).

VALENTINO D. B. MAZZIA, M.D.

with Artusio, J. F., Jr., Marbury, B. E., and Van Poznak, A. Anesthesia for Cardiac Surgery. Surgical Clinics of North America, 41: 2, Part I. Macrh 1961.

with Van Poznak, A. Brand, L., Mark, L. C. Lack of Correlation between Electroencephalographic Effects and Plasma Concentrations of Thiopental. Brit. Jour of Anaesth. 33: 2, February 1961.

with Artusio, J. F., Jr. "Practical Anesthesiology," edited by C. V. Mosby Company, St. Louis. (In press).

ROBERT I. SCHRIER, M.D.

with Artusio, J. F., Jr., Marbury, B. E., and Van Poznak, A. Methoxyflurane: The First Five Hundred Cases. (In press.)

ROBERT G. MERIN, M.D.

with Artusio, J. F., Jr., Van Poznak, A., Beirne, J. J. A Clinical Evaluation of Teflurance: A Preliminary Report (In press).

JOHN J. BEIRNE, M.D.

with Artusio, J. F., Jr., Van Poznak, A., Merin, R. G. A Clinical Evaluation of Teflurane: A Preliminary Report (In press).

ANTHONY J. PULEO, M.D.

*with Artusio, J. F., Jr. "Pharmacology," Chapter in Drugs of Choice by Forty American authors, F. A. Davis Company, Phila., Pa.